



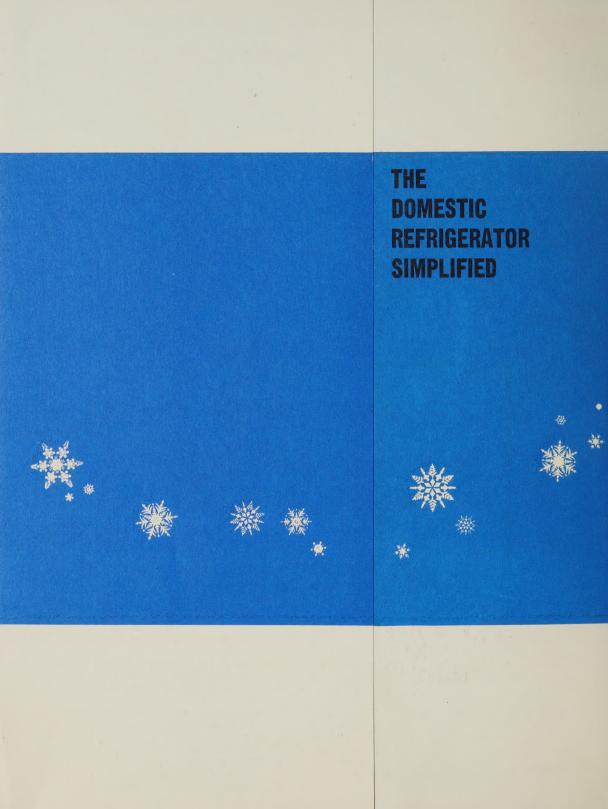
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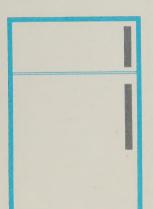












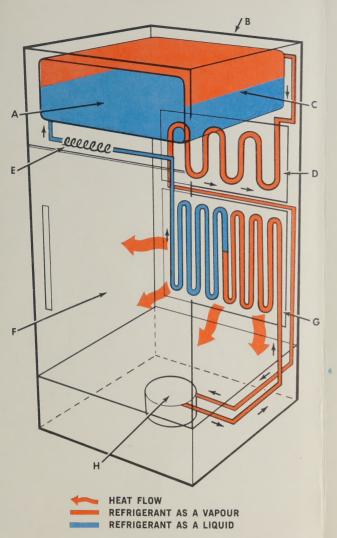
CANADIAN DOMESTIC REFRIGERATOR COMPONENTS

FOR EXPORT

Published by authority of The Hon. Mitchell Sharp, Minister of Trade and Commerce Ottawa, Canada







A ZERO ZONE FOR STOCKING FROZEN FOODS AND MAKING ICE CUBES

- B INNER AND OUTER REFRIGERATOR BOX INSULATED
- C FREEZER OR EVAPORATOR (REFRIGERANT CHANGES FROM LIQUID TO VAPOUR)
- D COLD PLATE (USED TO REFRIGERATE FRESH FOOD SECTION)
- E CAPILLARY TUBE (LIQUID REFRIGERANT METERED TO GO TO THE FREEZER)
- F 32°F/0°C TO 50°F/10°C TO PRESERVE FRESH FOOD
- G CONDENSER (USUALLY ATTACHED TO THE OUTSIDE REAR WALL)
- H COMPRESSOR (MOTOR AND COMPRESSOR COMBINED)

Any domestic refrigerator is made up of three basic components:

- (a) The refrigerator cabinet
- (b) The refrigeration system
- (c) The electrical system

The cabinet is insulated to provide a sealed space away from the external atmosphere. This space is then cooled by the refrigeration system. The electrical systems include cabinet lights, thermostats and relays which control the operation of the compressor that runs the refrigeration system.

The heart of the domestic refrigerator is the refrigeration system which basically is comprised of an evaporator or freezer, a compressor, and a condenser. The refrigerant circulates in this system, and depending on the point in the cycle is in either a liquid or gaseous state. Liquid refrigerant enters the evaporator through a metering orifice or capillary and, because the evaporator is at low pressure, the refrigerant vaporizes and in the process picks up heat from the inside of the refrigerator cabinet. The gaseous refrigerant leaves the evaporator via copper tubing and is circulated back to the compressor where its pressure and temperature are increased. The hot, high pressure gas then travels to the condenser where, by dissipating its heat to the atmosphere, it is cooled and condensed to a liquid. When this liquid refrigerant leaves the condenser it is then sent back through the capillary to the evaporator where the cycle begins again.



In recent months interest has been shown by Canadian component manufacturers in exploring export fields for their products. This, to a degree, is a natural transition which grows with maturity in a developing industry.

During the past ten years the Canadian component industry has risen from a minute group of manufacturers supplying a very small percentage of the total requirements of the Canadian finished goods industry. Today they supply the major appliances industry in Canada with most of its requirements from local plants.

This booklet is an outline of one such component industry; the parts for the domestic refrigerator.

The information was gleaned from some of the manufacturing sources, and is in no way a complete manual. Nor has the export policy of all the companies listed been appraised.

It is, however, an indication of the depth of production of refrigerator components in Canada as well as a guide to the main component areas.

- K	Montmagny, Quebec
*	Canadian Admiral Corporation Limited 501 Lakeshore Road Port Credit, Ontario
*	Canadian General Electric Co. Limited 5781 Notre Dame Street East Montreal, Quebec
*	Canadian Westinghouse International Co. Limited 840 York Mills Road Toronto, Ontario
*	The Danby Appliance Corporation 5770 Ferrier Street Montreal 9, Quebec
*	Franklin Manufacturing Company (Canada) Limited 501 Franklin Boulevard Galt, Ontario
*	Frigidaire Products of Canada Limited 1901 Eglinton Avenue East Scarborough, Ontario
*	General Steel Wares Limited 135 St. Clair Avenue West Toronto 7, Ontario
*	Hupp Canada Limited L'Assomption, Quebec
*	Kelvinator of Canada Limited 1152 Dundas Street East London, Ontario
*	Moffats Limited Wright & Gibson Avenues Weston, Ontario
*	Vanguardia Corporation Granby, Quebec



REFRIGERATOR COMPONENTS



ADHESIVES, COMPOUNDS AND TAPES:

Adhesives are used in domestic refrigerators to hold the cabinet insulation in place and to act as an additional seal for exposed tubing and joints.

The Borden Chemical Co. (Canada) Ltd.
Industrial Adhesives Ltd.
S. F. Lawrason and Co. Ltd.
Minnesota Mining and Manufacturing of Canada Ltd.
The Tremco Manufacturing Co. (Canada) Ltd.

ALUMINUM, DECORATIVE AND EXTRUDED:

Aluminum is used for trim on both the exterior and interior of the refrigerator cabinet.

Aluminum Extruders Ltd. Canadian Name Plate Co. Ltd. The Daymond Company Ltd. General Impact Extrusions Ltd.

ALUMINUM SHEET:

Aluminum is used to form various component parts of the refrigerator over and above the evaporator and cold plates described elsewhere. In addition, sheets are manufactured into various trim parts.

Aluminum Co. of Canada Ltd. Reynolds Aluminum Company of Canada Ltd. Supreme Aluminum Industries Ltd.

ALUMINUM TUBING:

Because of the heat conduction and corrosion resistant qualities of aluminum, aluminum tubing is in wide use in the evaporator.

Aluminum Co. of Canada Ltd.
Reynolds Aluminum Company of Canada Ltd.
Standard Tube & T.I. Co.

APRONS: (see kick-plate)

BOLTS: (see fasteners)

BRACKETS AND SUPPORTS, METAL: (see stampings, metal)

BREAKER STRIPS, BREAKER FRAMES, PLASTIC MOULDED OR EXTRUDED: (see also plastic moulding)

Moulded or extruded plastic breaker strips are used around the door frame of the refrigerator cabinet and the freezer compartment. Often the breaker strip around the freezer compartment is a one-piece mould-

ing referred to as a breaker frame.

Bow Plastics Ltd.
Canadian General Electric Co. Ltd.
Kemp Products Ltd.
Maple Leaf Plastics Ltd.
Midland Plastics Ltd.
Ontario Steel Products Co. Ltd.
Robinson Industrial Crafts Ltd.
Smith and Stone Ltd.

CAPACITORS:

Used with one type of electric motor to assist in starting.

Aerovox Canada Ltd.

Johnson Matthey and Mallory Ltd.

CAPILLARY TUBES: (see also copper tubing)

The capillary is a tube of a relatively small diameter through which the liquid refrigerant is metered into the evaporator. The size and length of the capillary tube determine the amount of liquid which will flow into the evaporator during the refrigeration cycle.

Anaconda American Brass Ltd. Noranda Copper Mills Ltd. Wolverine Tube of Canada Ltd.

COLD PLATE (Heat Exchanger):

The cold plate is an extension of the evaporator which receives refrigerant which has been warmed slightly while following its course through the evaporator. The cold plate is used to refrigerate the fresh food section of the refrigerator and, in automatic defrost refrigerators, it is the point on which water collects before flowing outside the refrigerator cabinet proper.

Aluminum Goods Limited

COMPRESSOR:

The compressor, the heart of the refrigerator system, takes the relatively low pressure refrigerant in a gaseous state and compresses it into a hot, higher pressure gas.

At the present time there does not appear to be a Canadian manufacturer and/or assembler, specializing in the manufacture of compressors suitable for domestic refrigerators, who can export from Canada

Kelvinator of Canada Limited, Frigidaire of Canada Limited and Canadian General Electric all design and manufacture compressors and may be interested in export subject to parent and foreign subsidiary agreements. It should be noted that in each of these cases at least part of their domestic refrigerators use a Tecumseh compressor either assembled in Canada from Canadian, Scottish and American components or imported directly from the United States or Scotland. Most export refrigerators now produced in Canada use the Scottish Stern compressor which is a licensee of Tecumseh Michigan or the Danfoss Compressor imported by Danfoss of Canada Limited from their parent in Denmark who also is a licensee of Tecumseh Michigan.

Canadian General Electric Co. Ltd.
Canadian Westinghouse International Co. Ltd.
Frigidaire Products of Canada Ltd.
Kelvinator of Canada Ltd.
Tecumseh Products of Canada Ltd.



COMPRESSOR SUPPORTS: (see stampings, metal)

CONDENSER PANELS:

The condenser panel is a steel frame holding several passes of condenser tubing which are usually finned to provide a means of transferring heat to the atmosphere from the hot refrigerant circulating in the condenser tubing.

Canadian Static Condenser Ltd. Frigidaire Products of Canada Ltd. Hupp Canada Ltd.

CONDENSER TUBING (Formed Steel Tubing, Copper Clad):

The condenser tubing transfers heat from the refrigerant to the condenser panel. There are two designs of condenser tubing, the Rochester Type and the Bundy Type.

Bundy Tubing Co. of Canada Ltd. Canadian Static Condenser Ltd. Franklin Manufacturing Co. (Canada) Ltd. Frigidaire Products of Canada Ltd. National Tubular Products Ltd. Weatherhead Co. of Canada Ltd.





CONTROL KNOBS, PLASTIC, MOULDED:

Control knobs are used in refrigerators to select the desired temperature for the interior of the refrigerator.

Automatic Plastics Co.
Canadian General Electric Co. Ltd.
Les Industries Provinciales Ltée.
Kemp Products Ltd.
Ontario Steel Products Co. Ltd.
Robinson Industrial Crafts Ltd.

COPPER FITTINGS:

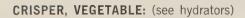
Copper fittings are used to join the various tubing components of the system to the compressor, condenser and evaporator.

Weatherhead Co. of Canada Ltd.

COPPER TUBING: (see also capillary tubes)

Copper tubing, because of its high heat conductivity and its resistance to corrosion, is used extensively in refrigerators. The tubing is used to carry the gaseous refrigerant from the evaporator and cold plate and return it to the compressor. In addition the copper tubing is used as capillary tubing.

Anaconda American Brass Ltd. Noranda Copper Mills Ltd. Wolverine Tube Co.



DECALS:

Decals are used in refrigerator cabinets, to indicate the name of manufacturer or the country of origin.

Canada Decalomania Co. Ltd. Canadian Name Plate Co. Ltd. Diecast Products Ltd.

DIE CASTINGS:

Die castings are used in various components of the domestic refrigerator such as door handles, and noise insulating blocks.

Barber Die Casting Co. Ltd.
Capital Metal Industries Ltd.
Dominion Die Casting Ltd.
Holmes Foundry Ltd.
Lakeshore Die Casting Ltd.
Lyster Die Casting Ltd.
National Hardware Specialties Limited
Pressure Castings of Canada Ltd.
Schultz Die Casting Co.

DOOR, INNER LINERS (Door Panels, Plastic): (see also plastic vacuum forming)

Plastic door panels are usually made of one-piece vacuum moulded plastic. The vacuum moulding will provide the basic sections for egg trays, various food shelves, butter and cheese compartments, etc.

Canadian Admiral Corp. Ltd.
Canadian Westinghouse Co. Ltd.
Frigidaire Products of Canada Ltd.
G. M. Plastics Corporation
Hupp Canada Ltd.
Morval Products Co. Ltd.

DOOR SEALS, PLASTIC AND RUBBER, MAGNETIC AND PLAIN:

Most refrigerators produced in Canada no longer use latches. An insulating rubber or vinyl seal around the door is magnetized and shuts firmly against the metal refrigerator cabinet. Other door seals which are not magnetized are used in conjunction with separate magnets which keep the door shut with the seal providing the isolating qualities required.

The General Tire and Rubber Company of Canada Ltd. B. F. Goodrich Canada Ltd. Goodyear Tire and Rubber Co. of Canada Ltd. Tridon Manufacturing Limited

DOOR SHELVES, METAL: (see also food shelves — aluminum)

This is a formed metal or wire component which is used to complete the shelves in the vacuum formed door liner.

Aluminum Goods Limited Dieomatic Metal Products Ltd. Rolled Metal Products Ltd.





DRIERS AND FILTERS:

The filter-drier, usually a single unit, is a part of the refrigeration system in which any residual moisture or foreign matter in the refrigerant is removed.

Kenmore Machine Products Ltd.

DRIP DEFLECTORS, PLASTIC MOULDED:

This is used to direct the water into the drip tray when the refrigerator is being defrosted.

G. M. Plastics Corporation
Morval Products Co. Ltd.

DRIP TRAYS:

This plastic item is used to catch water from the evaporator during the defrosting process and also used to hold foods for chilling as it is positioned immediately below the evaporator.

Bow Plastics Ltd.
Canadian General Electric Co. Ltd.
Maple Leaf Plastics Ltd.
Midland Plastics Ltd.
Ontario Steel Products Co. Ltd.
Robinson Industrial Crafts Ltd.
Smith and Stone Ltd.



EGG TRAYS, PLASTIC MOULDED:

These are used to complete the interior cabinet door.

Bow Plastics Ltd.
Plastomer Ltd.
Robinson Industrial Crafts Ltd.



ELECTRICAL WIRE: (see also service cords and leads, materials)

Wire is used in the electrical system of the refrigerator to connect up the compressor motor, the light and the controls.

Canada Wire and Cable Co. Ltd.
Canadian General Electric Co. Ltd.
Federal Wire and Cable, Wire and Cable Division
General Wire and Cable Co. Ltd.
Industrial Wire & Cable Co. Ltd.
Phillips Electrical Co. Ltd.
Pirelli Cables. Conduits Ltd.

ELEMENT:

A type of insulated heater element used to accelerate defrosting.

The Canadian Chromalox Co. Limited
Canadian General Electric Co. Ltd. "Calrod"
Canadian Westinghouse International Co. Ltd. "Corox"

ESCUTCHEON FRAME (Door Trim):

This component is associated with the metal trim and name plates and is used to hold them in place. Some Canadian firms use a die cast name plate without an escutcheon frame.

Canadian Name Plate Co. Ltd. Capital Metal Industries Ltd.

EVAPORATORS, (Freezer):

The evaporator or freezer, as it is commonly called, is that part of the refrigerator in which the liquid refrigerant vaporizes and picks up heat from the interior of the refrigerator cabinet. The evaporator is made by fastening tubing to metal sheets or by forming the refrigerant path directly in two sheets by embossing and then subsequently brazing or welding the sheets together. Aluminum is usually used in evaporators and evaporator tubing because it is a good heat conductor. Evaporators, however, can also be made of plated mild steel or of stainless steel. At present only one Canadian manufacturer produces aluminum evaporators in Canada.



EVAPORATOR BREAKER FRAME: (see breaker strips) **EVAPORATOR DOORS, METAL:**

The evaporator door or freezer door completes the freezer section of the refrigerator cabinet.

Aluminum Goods Limited Canadian Name Plate Co. Ltd. Croname-MacDonald Ltd.











EVAPORATOR DOOR INTERIOR PANELS, PLASTIC:

The evaporator door interior panels are often of moulded plastic and include a shelf for frozen juices, ice cream, etc.

Bow Plastics Ltd. Kemp Products Ltd. Maple Leaf Plastics Ltd. Midland Plastics Ltd. Ontario Steel Products Co. Ltd. Robinson Industrial Crafts Ltd. Smith and Stone Ltd.



EVAPORATOR FINS:

Evaporator fins can be affixed to the evaporator or cooling coil to increase the amount of effective cooling surface and hence to increase the cooling capacity of the unit. There are two types of fins: a continuous type through which all tubes of the cooling coil pass, and an individual-disc type where discs are fitted over the tubing and bonded to it. Aluminum is used mainly for these fins as it conducts heat readily and is easily worked.

Aluminum Goods Limited KeepRite Products Ltd.

EVAPORATOR FIN COIL TUBING:

Evaporator tubing is usually made of copper or aluminum. Aluminum fins can be bonded to the copper or aluminum tubing to maximize the effect of the cooling coil. Quite often in a simple domestic refrigerator the evaporator tubing is simply wrapped around the evaporator.

Aluminum Goods of Canada Ltd. KeepRite Products Ltd.



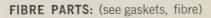
FANS, BLOWER, COLD AIR CIRCULATING:

In modern "No-Frost" or "Frost-Free" refrigerator units, the cooling is done by circulating cold air through the freezer and refrigerator cabinet. Fans are used in this process. There are no known Canadian manufacturers at present.

FASTENERS (Screws, Nuts, Bolts, etc.):

Fasteners of many kinds are used throughout the refrigerator and freezer cabinet.

Burke-Thumm Ltd.
Canadian Acme Screw and Gear Division
Capital Metal Industries Ltd.
Dominion Fasteners Ltd.
Dominion Steel and Coal Corp.
Eaton Automotive Canada Limited
Esna Ltd.
Falcon Fasteners Ltd.
Federal Bolt and Nut Corp. Ltd.
Griplok of Canada Ltd.
Morrow Screw and Nut Co. Ltd.
Prestole Corporation (Canada) Ltd.
P. L. Robertson Mfg. Co. Ltd.
Shakeproof-Fastex Ltd.
Steel Co. of Canada Ltd.



FILTERS AND DRIERS: (see driers and filters)

FOOD SHELVES, ALUMINUM (For Inner Door Liner): (see door shelves, metal)

These shelves are used to finish the moulded interior door liner.

Aluminum Company of Canada Ltd.

Aluminum Extruders Ltd.

Canadian Name Plate Co. Ltd.

FOOD SHELVES, WIRE: (see wire goods and specialties)

Wire food shelves are used extensively in the main refrigerator cabinet. They can be produced quite easily by most wire goods manufacturers and are readily obtainable in Canada.

> Beaverton Specialties Ltd. Cogan Wire and Metal Products Ltd. Croname-MacDonald Ltd. Fitzgerald McAvoy Wire Goods Ltd. Imperial Wire Specialties Ltd. Johnson Wire Works Ltd. Marshall Industries Ltd. New York Wire Works Ltd. Sparton of Canada Ltd.

FORMED STEEL TUBING, COPPER CLAD: (see condenser tubing) GASKETS, FIBRE:

Fibre gaskets are used throughout the refrigerator cabinet and refrigeration system. They function as sealing and sound deadening.

Acro Gasket Industries Ltd.

Arborite Company, Division of Domtar Construction Materials Ltd.

Dominion Gasket Mfg. Co. Ltd.

National Fibre Co. of Canada Ltd.

Paramount Gasket Co. Ltd.

Somerville Industries Ltd.

Spaulding Fibre of Canada Ltd.

Victor Mfg. and Gasket Co. of Canada Ltd.

GASKETS. RUBBER:

Rubber gaskets are usually used for sealing purposes.

Albion Asbestos Packings (1959) Ltd. Federal-Mogul-Bower Canada Ltd.

The General Tire & Rubber Co. of Canada Ltd.

B. F. Goodrich Canada Ltd.

Victor Mfg. and Gasket Co. of Canada Ltd.

GROMMETS, RUBBER, EXTRUDED AND CUT:

Rubber grommets are used where tubing or wire passes through sheet metal or when packing the machines for delivery.

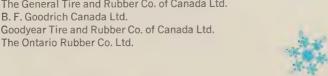
Canadian General Electric Co. Ltd.

Federal-Mogul-Bower Canada Ltd.

The General Tire and Rubber Co. of Canada Ltd.

B. F. Goodrich Canada Ltd.

The Ontario Rubber Co. Ltd.





GLASS SHELVES AND COVERS:

A glass shelf is often used to divide the crisper sections of the refrigerator from the refrigerator proper. Glass may be used as a lid for crispers and hydrators. As a lid it helps retain the moisture in fresh vegetables and its strength makes it suitable as an additional shelf.

Canadian Pittsburgh Industries Ltd.

GLASS FIBRE INSULATION:

Glass fibre insulation is used extensively in refrigerator and freezer cabinets as it has good insulating qualities and retains its resiliency. That is, it is not easily disformed. The insulation is attached to the cabinet frame with adhesive and thereby kept firmly in place. At the present time, the Canadian Refrigerator Industry is studying the qualities of glass fibre insulation in comparison with plastic insulation such as polystyrene, polyethylene and polyurethane. Glass fibre insulation also must compete with Rockwool Insulation. Atthough Rockwool has slightly better insulating qualities, it has a tendency to compress with time and therefore is not as suitable a material. Rockwool is usually used in the economy models.



Fibreglas Canada Ltd. Holmes Foundry Ltd.

GUSSETS, LINER MOULDING, MOULDED PLASTICS:

The refrigerator cabinet liner is protected by gussets which wrap around the corners to prevent chipping of the porcelain surface.

Bow Plastics Ltd.
Maple Leaf Plastics Ltd.
Midland Plastics Ltd.
Ontario Steel Products Co. Ltd.
Robinson Industrial Crafts Ltd.
Smith and Stone Ltd.



HANDLES:

This die cast product is produced to match the styling of each individual refrigerator. The handle no longer includes a latch assembly as most refrigerator doors are now sealed by means of magnetized vinyl door seals or vinyl door seals used in conjunction with magnets.

Barber Die Casting Co. Ltd.
Canadian Name Plate Co. Ltd.
Capital Metal Industries Ltd.
Hahn Brass Ltd.
Lakeshore Die Casting Ltd.
Lyster Die Casting Ltd.
National Hardware Specialties Ltd.
Pressure Castings of Canada Ltd.
Schultz Die Casting Co. of Canada Ltd.





HEATER ASSEMBLY (No Frost Units):

A small heater assembly is used to prevent certain parts of the refrigerator tubing from frosting. There are a number of small heating units in a refrigerator which remain on at all times and others which are active only during the off-cycle of the refrigerator.

> Beck Electric Manufacturing Co. Ltd. Cords (Canada) Ltd. Fleck Manufacturing Co.

HINGES:

The hinge assemblies include die cast parts and are produced to match the particular styling of the manufacturer.

Century Engineering Co. Ltd. Hahn Brass Ltd. Stanley Steel Co. Ltd.

HYDRATORS (Crispers):

Hydrators can also be referred to as vegetable crispers, food bins, etc. They are used to prevent cold air from circulating around fresh foods too rapidly, which would dehydrate them at a more rapid rate than is desirable.

Canadian General Electric Co. Ltd.
Canadian Westinghouse International Co. Ltd.
Century Engineering Co. Ltd.
General Steel Wares Ltd.
N. Slater Co. Ltd.

ICE CUBE TRAYS, METAL OR PLASTIC:

Metal ice cube trays are available in Canada through a single source of supply but a variety of plastic ice cube trays can be obtained through plastic manufacturers.

Aluminum Goods Limited (Aluminum)
Bow Plastics Ltd.
Dale Valve Co. of Canada Ltd.
Maple Leaf Plastics Ltd.
Midland Plastics Ltd.
Ontario Steel Products Co. Ltd.
Robinson Industrial Crafts Ltd.
Smith and Stone Ltd.

INLET AND OUTLET TUBES FOR EVAPORATORS:

The inlet and outlet tube, although appearing to be a simple unit, is the result of much research. It is used to join the copper refrigerator tubing with the aluminum evaporator tubing. Copper and aluminum cannot be easily bonded to one another and as the refrigeration system must be sealed, the inlet and outlet tubes are an extremely important part. It provides a relatively simple method of binding the copper and aluminum tubing together.

Aluminum Goods Limited
Texas Instrument of Canada Ltd.

INNER LINERS, REFRIGERATOR CABINET:

The inner liner of the refrigerator cabinet is usually made of porcelained steel. One Canadian firm produces a vacuum moulded plastic inner liner, another produces an aluminum cabinet liner.

Aluminum Goods Limited
A. Belanger Ltd.
Canadian Admiral Corporation Ltd.
Canadian General Electric Co. Ltd.
Canadian Westinghouse International Co. Ltd.
Franklin Manufacturing Co. (Canada) Ltd.
Frigidaire Products of Canada Ltd.
General Steel Wares Ltd.
Hupp Canada Ltd.
Kelvinator of Canada Ltd.



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INSULATION, GLASS FIBRE OR ROCKWOOL: (see glass fibre insulation)

Canadian Johns-Manville Co. Ltd. — Rockwool Fibreglas Canada Ltd. — Glass fibre Holmes Foundry Ltd. — Glass fibre

INSULATIONS, PLASTIC MOULDED OR FOAM:

Insulations, plastic moulded or foam are being used in modest quantities in domestic refrigerators. Foam insulations have better insulating qualities but are more expensive than glass fibre. Often a moulded foam insulation is used around the evaporator. In addition polyure-thane foam is used in some chest type freezers where it is blown into the cavities and allowed to expand and solidify within the cabinet.

Dow Chemical of Canada Ltd. G. M. Plastic Corporation Morval Products Co. Ltd.

KICK-PLATE:

Kick-plate or apron, is part of the exterior refrigerator cabinet and is made of decorative aluminum or chromed wire.

Aluminum Goods Limited Croname-MacDonald Ltd. Dieomatic Metal Products Ltd.

LABELS:

Cameo Crafts Ltd.

LAMPS:

Canadian General Electric Co. Ltd. Canadian Westinghouse International Co. Ltd.

LAMP SOCKET AND CORD, FABRICATORS:

A simple part of the refrigerator's electrical system, the lamp socket and cord can be readily produced.

Fleck Manufacturing Co. Noma Lites Canada Ltd. Smith and Stone Ltd.

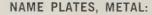
MAGNETS:

Magnets are used in place of latches to keep refrigerator and freezer doors shut. The magnetic latch may be a hollow vinyl door seal containing magnetic particles or it may be separate pieces of metal used in conjunction with the door seal.

Canadian General Electric Ltd.
Indiana Steel Products Canada Ltd.







Name plates are often produced by die-casting firms.

Canadian Name Plate Co. Ltd.
Capital Metal Industries Ltd.
Craft Originators and Mfgrs.
Croname-MacDonald Ltd.
The Daymond Co. Ltd.
Diecast Products Ltd.
Dominion Name Plates Ltd.
Fox Bros. Ltd.
Hahn Brass Ltd.
The Jonergin Co. Inc.
J. A. MacFarlane Engineering Co. Ltd.
Markrite of Canada Inc.
Regal Die Casting Co. Ltd.



NUTS: (see fasteners)

PLASTIC MOULDING:

Moulded plastic parts are found throughout the refrigerator.

Automatic Plastics Co. Bow Plastics Ltd.

Canadian General Electric Co. Ltd.

Furlong Plastics Ltd. Kemp Products Ltd. Maple Leaf Plastics Ltd.

Micro Plastics, Division of Building Products Ltd.

Midland Plastics Ltd.

Ontario Steel Products Co. Ltd.

Plastiglide Ltd. Plastomer Ltd.

Robinson Industrial Crafts Ltd.

Smith and Stone Ltd.

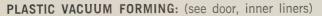
PLASTIC SHEET:

Suitable plastic sheet to be used for vacuum forming refrigerator parts such as refrigerator cabinet liner, inner door liners, both refrigerator hydrators and freezer containers, etc. are produced in Canada.

G. M. Plastics Corporation Korlin Ltd. Micro Plastics, Division of Building Products Ltd.

PLASTICS. RAW MATERIALS:

Dow Chemical of Canada Ltd. G. M. Plastics Corporation Monsanto Canada Ltd. Morval Products Co. Ltd. Union Carbide Canada Ltd.



POLYETHYLENE TUBING:

Micro Plastics Ltd.
Paisley Products
W. Ralston and Co. (Canada) Ltd.

POLYSTYRENE FOAM, MOULDED:

This plastic insulating material is one of several used to produce form fitting insulation parts.

Dow Chemical of Canada Ltd. G. M. Plastics Corporation Morval Products Co. Ltd.

REFRIGERANTS:

The most common refrigerants used in domestic refrigerators are of the Freon variety.

Du Pont of Canada I td.

REFRIGERATOR CABINET DOORS:

The refrigerator cabinet door, besides providing the all-important seal for the refrigeration cabinet, enhances the design of the complete unit.

A. Belanger Ltd.
Canadian Admiral Corporation Ltd.
Canadian General Electric Co. Ltd.
Canadian Westinghouse International Co. Ltd.
Franklin Manufacturing Co. (Canada) Ltd.
Frigidaire Products of Canada Ltd.
General Steel Wares Ltd.
Hupp Canada Ltd.
Kelvinator of Canada Ltd.







REFRIGERATOR COMPRESSOR LUBRICANTS:

Imperial Oil Ltd. Sun Oil Co. Ltd.

RELAYS, ELECTRIC:

Relays are used for switching on the electrical system to control the operation of the compressor.

Texas Instruments of Canada Ltd.

ROCKWOOL INSULATION: (see insulation, glass fibre or rockwool) **ROLL FORMINGS:**

Some metal components for refrigerators are produced by a roll forming process.

Cresswell-Pomeroy Ltd. Hull-Thomson Ltd. Rolled Metal Products Ltd.

RUBBER, MOULDED: (see gaskets, rubber)

SCREW MACHINE PRODUCTS: (see fasteners)

SCREWS, NUTS, BOLTS: (see fasteners)

SERVICE CORDS AND LEADS, MATERIALS: (see also electrical wire)

Canada Wire and Cable Co. Ltd. Federal Wire and Cable General Wire and Cable Co. Ltd. Phillips Electrical Co. Ltd.

SERVICE CORDS AND LEADS, FABRICATORS:

(Power cord sets.) The service cords and leads are the basis of the refrigerator's electrical system. They are fabricated in accordance with the specifications laid down by the finished goods manufacturer.

Cords (Canada) Ltd. Fleck Manufacturing Co. Noma Lites Canada Ltd.

SHELF SLIDES, SUPPORTS, ETC. (Plastics):

These refer to the slides and supports which are attached to the refrigerator cabinet and support food shelves, etc.

> Automatic Plastics Co. The Daymond Co. Ltd. General Steel Wares Ltd. Robinson Industrial Crafts Ltd. Shakeproof-Fastex Ltd.





SPEED NUTS: (see fasteners)

SPRINGS:

Springs have many applications in domestic refrigerators. They are used to eliminate vibration of the compressor, to deaden sound, or to provide spring action for various doors such as the evaporator, butter compartment, etc.

Bohne Industries Ltd.
Capital Metals Industries Ltd.
Elgin Spring Products Ltd.
Foster Springs Ltd.
Hamilton Wire Products Co. Ltd.
Hyde Spring and Wire (Canada) Ltd.
Interlake Steel Products Co. Ltd.
Wallace Barnes Co. Ltd.

STAMPINGS, METAL (Brackets and Supports, Metal):

Accurate Machine and Tool Ltd.
Automatic Metal Stampings Ltd.
Butler Metals Ltd.
Capital Metal Industries Ltd.
Century Engineering Co. Ltd.
Dafew Mfg. Ltd.
Hahn Brass Ltd.
Jones Mfg. Co. Ltd.
R. Reininger and Son Ltd.
Sehl Engineering Ltd.
A. G. Simpson Co. Ltd.
W. J. Thorn Co. Ltd.
Tubular Steel Products Ltd.
Zettel Manufacturing Ltd.





STEEL, SHEET:

Algoma Steel Corporation Ltd. Dominion Foundries and Steel Ltd. The Steel Co. of Canada Ltd.

STEEL, WIRE:

Steel wire is commonly used in fabricating wire food shelves.

Dominion Steel and Coal Corp.

The Steel Co. of Canada Ltd.

THERMOSTATS:

The thermostat is important in the refrigerator as it, in conjunction with relays, controls the operation of the refrigeration system to provide the required cabinet temperature.

Ranco Controls Canada Ltd. Texas Instruments of Canada Ltd. Therm-O-Disc (Canada) Ltd.

TOP AND SIDE MOULDING, PLASTIC, DOORS: (see plastic moulding)

TRIM, METAL: (see also aluminum, decorative and extruded)



TUBING: (see aluminum, copper, condenser, formed steel, polyethylene tubing)

WASHERS:

Freeway Washer Ltd.

WIRE BASKETS: (see wire goods and specialties)

WIRE AND CABLE: (see service cords and leads, materials – also, steel wire)

WIRE FOOD SHELVES, DOOR RACK, ETC.: (see wire goods and specialties)

WIRE GOODS AND SPECIALTIES:

Various wire components, particularly food shelves, can be made readily by most firms producing any type of wire goods.

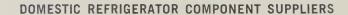
Beaverton Specialties Ltd.
Canadian General Electric Co. Ltd.
Canadian Westinghouse International Co. Ltd.
Cogan Wire and Metal Products Ltd.
Croname-MacDonald Ltd.
Fitzgerald McAvoy Wire Goods Ltd.
Imperial Wire Specialties Ltd.
Johnson Wire Works Ltd.
Marshall Industries Ltd.
New York Wire Works Ltd.
Sparton of Canada Ltd.

WIRING HARNESS (Service Cords and Leads):

This is a term which can be used for precut service cords and leads, etc.

Beck Electric Manufacturing Co. Ltd. Elektrikords and Harness Ltd. Fleck Manufacturing Co.







A

Accurate Machine and Tool Ltd. 1844 Wilson Avenue Weston, Ontario

Acro Gasket Industries Ltd. 19 Shaft Road Rexdale, Ontario

Aerovox Canada Ltd. 1551 Barton Street East Hamilton, Ontario

Albion Asbestos Packings (1959) Ltd. 2195 Elkers Avenue Montreal, Quebec

Algoma Steel Corporation Ltd. 503 Queen Street East Sault Ste. Marie, Ontario

Aluminum Co. of Canada Ltd. Place Ville Marie Montreal 2, Quebec

Aluminum Extruders Ltd. P.O. Box 157 Ste. Therese de Blainville, Quebec

Aluminum Goods Limited 158 Sterling Road Toronto 3, Ontario

Anaconda American Brass Ltd. 8th Street New Toronto Toronto 14, Ontario

Arborite Co., Division of Domtar Construction Materials Ltd. 385 La Fleur Avenue La Salle, Quebec Automatic Metal Stampings Ltd. 34 Chauncey Avenue Toronto 18, Ontario

Automatic Plastics Co. 399 Kennedy Road Scarborough, Ontario

B

Barber Die Casting Co. Ltd. Hillyard Street Hamilton, Ontario

Beaverton Specialties Ltd.Mill Street
Beaverton, Ontario

Beck Electric Manufacturing Co. Ltd. 10 Alcorn Avenue Toronto 7, Ontario

A. Belanger Ltd. Montmagny, Quebec

Bohne Industries Ltd. 1153 Queen Street West Toronto 3, Ontario

The Borden Chemical Company (Canada) Ltd. P.O. Box 610 West Hill. Ontario

Bow Plastics Ltd. 15 Vittie Street Granby, Quebec

Bundy Tubing Co. of Canada Ltd. 316 Orenda Road Brampton, Ontario

Burke-Thumm Ltd. 14 Breadalbane Street Toronto 5, Ontario

Butler Metals Ltd. 400 Guelph Street North Preston, Ontario

C

Cameo Crafts Limited 157 St. Paul Street West Montreal 1, Quebec

Canada Decalomania Co. Ltd. Beamsville, Ontario

Canada Wire and Cable Co. Ltd. 147 Laird Drive Toronto 17, Ontario

Canadian Acme Screw and Gear Division, Levy Industries Ltd. 207 Weston Road Toronto 9, Ontario

Canadian Admiral Corporation Ltd. 501 Lakeshore Road Port Credit. Ontario

The Canadian Chromalox Co. Limited 210 Rexdale Boulevard Rexdale, Ontario

Canadian General Electric Co. Ltd. 214 King Street West Toronto 1, Ontario

Canadian Johns-Manville Co. Ltd. 565 Lakeshore Road East Port Credit. Ontario

Canadian Name Plate Co. Ltd. 1 Bay Street Midland, Ontario

Canadian Pittsburgh Industries Ltd. 48 St. Clair Avenue West Toronto 7, Ontario

Canadian Static Condenser Ltd. Beamsville, Ontario

Canadian Westinghouse International Co. Ltd. 840 York Mills Road Toronto, Ontario

Capital Metal Industries Ltd. 61 Milne Avenue Scarborough, Ontario



Century Engineering Co. Ltd. 7 Wabash Avenue Toronto 3, Ontario

Cogan Wire and Metal Products Ltd. 2245 De La Salle Avenue Montreal 4, Quebec

Cords (Canada) Limited 149 Sterling Road Toronto 3, Ontario

Craft Originators and Mfgrs. 51 Sanford Avenue West Hamilton, Ontario

Cresswell-Pomeroy Limited 553 Leon Harmel Street Granby, Quebec

Croname-MacDonald Limited 50 Taylor Street Waterloo, Quebec

D

Dafew Mfg. Limited 85 Northline Road Toronto 16, Ontario

Dale Valve Co. of Canada Ltd. 1490 Speers Road Oakville, Ontario

The Danby Appliance Corp. 5770 Ferrier Street Montreal 9, Quebec

The Daymond Company Limited 675 Richmond Street Chatham, Ontario

Diecast Products Ltd. 1085 Winnipeg Avenue Winnipeg 3, Manitoba

Dieomatic Metal Products Ltd. 385 Ohio Road Richmond Hill, Ontario

Dominion Die Casting Ltd. Libby Street Wallaceburg, Ontario

Dominion Fasteners Ltd. Box 492, Main P.O. Hamilton, Ontario

Dominion Foundries and Steel Ltd. P.O. Box 460 Hamilton, Ontario



Dominion Gasket & Manufacturing Company Limited Fleck Manufacturing Company

2 Scarlett Road Toronto 9, Ontario

Dominion Name Plates Limited 24 McGee Street

Toronto 8. Ontario

Dominion Steel and Coal Corp.

P.O. Box 249 Montreal, Quebec

Dow Chemical of Canada Ltd.

P.O. Box 1012 Sarnia, Ontario

Du Pont of Canada Ltd.

P.O. Box 660 Montreal 3, Quebec

Eaton Automotive Canada Limited

450 Highbury Avenue London, Ontario

Elektrikords and Harness Ltd.

99 McMaster Avenue Aiax. Ontario

Elgin Spring Products Ltd.

Cayuga, Ontario

Esna Limited

271 Progress Avenue Scarborough, Ontario

Falcon Fasteners Ltd.

251 Nantucket Boulevard Scarborough, Ontario

Federal Bolt and Nut Corp., Ltd.

1171 Queen Street West Toronto 3, Ontario

Federal-Mogul-Bower (Canada) Ltd.

341 Erie Street Stratford, Ontario

Federal Wire and Cable

P.O. Box 90 Guelph, Ontario

Fibreglas Canada Ltd.

48 St. Clair Avenue West Toronto 7, Ontario

Fitzgerald McAvov Wire Goods Ltd.

21 Haas Road Rexdale, Ontario

80 Harvey Street Tillsonburg, Ontario

Foster Springs Ltd.

200 St. Antoine Street Granby, Quebec

Fox Bros. Ltd.

361 Youville Square Montreal 1. Quebec

Franklin Manufacturing Co. (Canada) Ltd.

501 Franklin Boulevard Galt. Ontario

Freeway Washer Ltd. P.O. Box 18 Islington, Ontario

Frigidaire Products of Canada Ltd.

1901 Eglinton Avenue East Scarborough, Ontario

Furlong Plastics Ltd.

1293 Caledonia Road Toronto 19, Ontario

General Impact Extrusions Ltd.

191 Evans Avenue Toronto 18. Ontario

General Steel Wares Ltd.

135 St. Clair Avenue West

Toronto 7, Ontario

The General Tire and Rubber Co. of Canada Ltd.

215 Wickstead Avenue Leaside, Toronto 17, Ontario

General Wire and Cable Co. Ltd.

P.O. Box 460 Cobourg, Ontario

G. M. Plastics Corporation

Granby, Quebec

B. F. Goodrich Canada Ltd.

Kitchener, Ontario

Goodyear Tire and Rubber Co. of Canada Ltd.

3050 Lakeshore Boulevard Toronto 14, Ontario

Griplok of Canada Ltd.

76 Howden Road

Scarborough, Ontario

н

Hahn Brass Ltd.

New Hamburg, Ontario

Hamilton Wire Products Co. Ltd. 304 Gage Avenue North Hamilton, Ontario

Holmes Foundry Ltd. 200 Exmouth Street Sarnia, Ontario

Hupp Canada Ltd. L'Assomption, Quebec

Hull-Thomson Ltd. 1325 McDougall Street Windsor, Ontario

Hyde Spring and Wire (Canada) Ltd. 366 Grand River Avenue Brantford. Ontario

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Imperial Oil Ltd. 111 St. Clair Avenue West Toronto 7, Ontario

Imperial Wire Specialties Ltd. 217 Lambton Avenue Toronto 9, Ontario

The Indiana Steel Products of Canada Ltd. 135 Hayward Avenue Kitchener, Ontario

Industrial Adhesives Ltd. 90 Tycos Drive Toronto 19. Ontario

Industrial Wire and Cable Co. Ltd. P.O. Box 130, Station "U" Toronto, Ontario

Les Industries Provinciales Ltée. St. Damien, Quebec

Interlake Steel Products Co. Ltd. P.O. Box 160 Thorold, Ontario

J

Johnson Matthey and Mallory Limited 110 Industry Street Toronto 15, Ontario

Johnson Wire Works Ltd. 530 de Courcelle Street Montreal 30, Quebec

The Jonergin Co. Inc. 110 River Street Verdun, Quebec

Jones Mfg. Co. Ltd. Box 1, Stratford, Ontario K

KeepRite Products Ltd. 44 Elgin Street Brantford, Ontario

Kelvinator of Canada Ltd. 1152 Dundas Street East London, Ontario

Kemp Products Ltd. 1881 Huron Street London, Ontario

Kenmore Machine Products Ltd. P.O. Box 916 Grimsby, Ontario

Korlin Limited 577 Erie Street Stratford, Ontario

Lakeshore Die Casting Limited P.O. Box 25 Oakville, Ontario

S. F. Lawrason and Co. Ltd. P.O. Box 996 London, Ontario

Lyster Die Casting Limited Lyster Station Megantic County, Quebec

M

J. A. MacFarlane Engineering Co. Ltd. 2010 Dundas Street West Toronto 3, Ontario

Maple Leaf Plastics Ltd. 375 Danforth Road Scarborough, Ontario

Markrite of Canada Inc. 648 Wellington Street Montreal 3, Quebec

Marshall Industries Ltd. 106 Vulcan Street Rexdale, Ontario

Morval Products Co. Ltd. 156 Birch Avenue Kitchener, Ontario

Micro Plastics, Division of Building Products Ltd. P.O. Box 300 Acton, Ontario

Midland Plastics Limited Elizabeth Street Midland, Ontario







Minnesota Mining and Manufacturing of Canada Ltd. Pirelli Cables, Conduits Limited

P.O. Box 2757, Oxford Street London, Ontario

Moffats Limited

Wright and Gibson Avenues Weston, Ontario

Monsanto Canada Limited P.O. Box 900 Montreal 3. Quebec

Morrow Screw and Nut Co. Ltd. Ingersoll, Ontario

N

National Fibre Co. of Canada Ltd. 107 Atlantic Avenue Toronto 3, Ontario

National Hardware Specialties Limited P.O. Box 250 Dresden, Ontario

National Tubular Products Ltd. 1 Adam Street Kitchener, Ontario

New York Wire Works Ltd. 5555 Notre Dame Street East Montreal 5, Quebec

Noma Lites Canada Ltd. 10 Alcan Avenue Toronto 7, Ontario

Noranda Copper Mills Ltd. P.O. Box 1158 Montreal 3, Quebec

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The Ontario Rubber Co. Ltd. 1244 Dufferin Street Toronto 4, Ontario

Ontario Steel Products Co. Ltd. 33 Scott Street Toronto 1, Ontario

Oxford Precision Products Ltd. P.O. Box 16 Woodstock, Ontario

P

Paisley Products of Canada Limited 36 Upton Road Scarborough, Ontario

Paramount Gasket Co. Ltd. 137 Wendel Avenue Weston, Ontario Pirelli Cables, Conduits Limited 47 Richelieu Street St. Johns. Quebec

Phillips Electrical Company Limited King Street West Brockville, Ontario

Plastiglide Limited 155 Bentworth Avenue Toronto 19, Ontario

Plastomer Limited 151 John Street Box 88 Barrie, Ontario

Pressure Castings of Canada Ltd. 1777 Weston Road Weston, Ontario

Prestole Corporation (Canada) Ltd. 20 Racine Road Rexdale, Ontario

R

W. Raiston and Co. (Canada) Ltd. 455 Cote Vertu, St. Laurent Montreal 9, Quebec

Ranco Controls Canada Ltd. 221 Evans Avenue Toronto 18, Ontario

Regal Die Casting Co. Ltd. 107 Kennedy Road South Brampton, Ontario

R. Reininger and Son Ltd. 114 Railside Road Don Mills, Ontario

Reynolds Aluminum Company of Canada Ltd. Cap-de-la-Madeleine, Quebec

P. L. Robertson Mfg. Co. Ltd. Bronte Street Milton, Ontario

Robinson Industrial Crafts Ltd. 310 Wellington Road London, Ontario

Rolled Metal Products Ltd. 50 Wade Avenue Toronto 4, Ontario

S

Sehl Engineering Ltd. 136 Ottawa Street Kitchener, Ontario Shakeproof-Fastex Ltd. 67 Scarsdale Road Don Mills, Ontario

Schultz Die Casting Co. of Canada Ltd. Box 450 Dresden, Ontario

A. G. Simpson Co. Ltd. 733 Warden Avenue Scarborough, Ontario

N. Slater Co. Ltd. P.O. Box 271 Hamilton, Ontario

Smith and Stone Ltd. 50 St. Clair Avenue West Toronto 7, Ontario

Somerville Industries Ltd. P.O. Box 2760, Terminal A London, Ontario

Sparton of Canada Ltd. P.O. Box 2125 London, Ontario

Spaulding Fibre of Canada Ltd. 70 Coronet Road Toronto 18. Ontario

Standard Tube & T. I. Co. Drew Street Waterloo, Ontario

Stanley Steel Co. Ltd. 57 Gerrard Street Hamilton, Ontario

The Steel Co. of Canada Ltd. Hamilton, Ontario

Sun Oil Co. Ltd. 85 Bloor Street East Toronto 5, Ontario

Supreme Aluminum Industries Ltd. 3600 Danforth Avenue Scarborough, Ontario

T

Tecumseh Products of Canada Ltd. 185 Ashland Avenue London, Ontario

Texas Instruments of Canada Ltd. P.O. Box 270 Richmond Hill, Ontario

Therm-O-Disc (Canada) Ltd. 95 Edgware Street St. Thomas, Ontario

W. J. Thorn Co. Ltd. 1 Riverview Avenue London, Ontario

The Tremco Manufacturing Co. (Canada) Ltd. 220 Wickstead Avenue Toronto 17, Ontario

Tridon Manufacturing Limited 150 Chatham Street Hamilton, Ontario

Tubular Steel Products Ltd. 97 Manville Road Scarborough, Ontario

U

Union Carbide Canada Ltd. 123 Eglinton Avenue East Toronto 12, Ontario

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Vanguardia Corporation Granby, Quebec

Victor Mfg. and Gasket Co. of Canada Ltd. Victor Drive St. Thomas, Ontario

W

Wallace Barnes Co. Ltd. 274 Sherman Avenue North Hamilton, Ontario

Weatherhead Co. of Canada Ltd. 107 Inkerman Street St. Thomas, Ontario

Wolverine Tube of Canada Limited Box 3115 London, Ontario

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